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Research Expertise: Applied Aquatic Ecology, Environmental Toxicology, Risk Assessment, Water Quality and Reuse

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II. Refereed publications devoted to *Prymnesium parvum* (* Denotes student coauthor)

53. James SV*, Valenti TW*, Roelke DL, Grover JP, Brooks BW. Accepted. Probabilistic ecological hazard assessment of Microcystin-LR to *Prymnesium parvum*. *J. Plankton Res.*
52. Schwierzke-Wade L*, Roelke DL, Valenti TW*, Brooks BW, Grover JP. Accepted. *Prymnesium parvum* bloom termination: Role of hydraulic dilution. *J. Plankton Res.*
51. James SV*, Valenti TW*, Prosser KP, Grover JP, Roelke DL, Brooks BW. 2010, In press. Sunlight amelioration of *Prymnesium parvum* acute toxicity to fish. *J. Plankton Res.*
50. Roelke DL, Grover JP, Brooks BW, Glass J, Buzan D, Southard GM, Fries L, Gable GM, Schwierzke-Wade L, Byrd M, Nelson J. 2010, In press. A decade of fish-killing *Prymnesium parvum* blooms in Texas: Roles of inflow and salinity. *J. Plankton Res.*
49. Grover JP, Crane KW*, Baker JW, Brooks BW, Roelke DL. 2010, In press. Spatial variation of harmful algae and their toxins in flowing-water habitats: a theoretical exploration. *J. Plankton Res.*
45. Valenti Jr TW*, James SV*, Lahousse M*, Schug KA, Roelke DL, Grover JP, Brooks BW. 2010. Influence of pH on amine toxicology and implications for harmful algal bloom ecology. *Toxicon* 55: 1038-1043.
44. Valenti Jr TW*, James SV*, Lahousse M*, Schug KA, Roelke DL, Grover JP, Brooks BW. 2010. A mechanistic explanation for pH-dependent ambient aquatic toxicity of *Prymnesium parvum* Carter. *Toxicon* 55: 990-998.
43. Roelke DL, Gable GM, Valenti TW*, Grover JP, Brooks BW, Pinckney JL. 2010. Hydraulic flushing as a *Prymnesium parvum* bloom-terminating mechanism in a subtropical lake. *Harmful Algae* 9: 323-332.
41. Schug KA, Skingel TS*, Spencer SE*, Serrano C*, Le CQ*, Schug CA*, Valenti Jr. TW*, Brooks BW, Mydlarz LD, and JP Grover. 2010. Hemolysis, fish mortality and LC-ESI-MS of cultured crude and fractionated golden alga (*Prymnesium parvum*). *Journal of American Water Resources Association* 46:33-44.
40. Brooks BW, James SV*, Valenti Jr. TW*, Urena-Boeck F*, Serrano C*, Berninger JP*, Schwierzke L*, Mydlarz LD, Grover JP, & DL Roelke. 2010. Comparative toxicity of *Prymnesium parvum* in inland waters. *Journal of American Water Resources Association* 46: 45-62.
39. Schwierzke L*, Roelke DL, Brooks BW, Grover JP, Valenti, Jr TW*, Lahousse M*, Miller CJ*, & JL Pinckney. 2010. *Prymnesium parvum* population dynamics during bloom development: a role assessment of grazers and virus. *Journal of American Water Resources Association* 46: 63-75.
38. Roelke DL, Schwierzke L*, Brooks BW, Grover JP, Errera RM, Valenti Jr. TW*, & JL Pinckney. 2010. Factors influencing *Prymnesium parvum* population dynamics during bloom initiation: Results from in-lake mesocosm experiments. *Journal of American Water Resources Association* 46: 76-91.
37. Grover JP, Baker JW, Roelke DL, & BW Brooks. 2010. Mathematical models of population dynamics of *Prymnesium parvum* in inland waters. *Journal of American Water Resources Association* 46: 92-107.

31. Baker JW*, Grover JP, Nair R*, Valenti Jr TW*, Brooks BW, & DL Roelke. 2009. Dynamics at the edge of the niche: an experimental study of the harmful alga *Prymnesium parvum*. *Limnology and Oceanography* 54: 1679-1687.
24. Errera RM*, Roelke DL, Kiesling R, Brooks BW, Grover JP, Ureña-Boeck F*, Baker JW*, Schwierzke L* & JL Pinckney. 2008. The effect of nitrogen and phosphorus availability, barley straw extract, and immigration on *Prymnesium parvum* community dominance and toxicity: Results from in-lake microcosm experiments, Texas, USA. *Aquatic Microbial Ecology* 52: 33-44.
18. Grover JP, Baker JW*, Ureña-Boeck F*, Brooks BW, Errera RM*, Roelke DL, & RL Kiesling. 2007. Laboratory tests of ammonium and barley straw extract as agents to suppress abundance and toxicity to fish of the harmful alga *Prymnesium parvum*. *Water Research* 41: 2503-2512.
16. Baker JW*, Grover JP, Brooks BW, Ureña-Boeck F*, Roelke DL, Errera RM* & RL Kiesling. 2007. Growth and toxicity of *Prymnesium parvum* ("golden algae") as a function of salinity, light and temperature. *Journal of Phycology* 43: 219-227.
15. Roelke DL, Errera RM*, Kiesling RL, Brooks BW, Grover JP, Ureña-Boeck F*, Baker JW* & JL Pinckney. 2007. Effects of nutrient enrichment on *Prymnesium parvum* population dynamics and toxicity: results from field experiments, Lake Possum Kingdom, USA. *Aquatic Microbial Ecology* 46: 125-140.

In Review:

Skingle TR, Spencer SE, Le CQ, Serrano CA, Mydlarz LD, Scarbrough BJ, Schug KA, Brooks BW, Grover JP. In review. Hemolytic toxicity and nutritional status of *Prymnesium parvum* during population growth

III. Editorships and Editorial Boards

- *Environmental Toxicology and Chemistry*
- *Integrated Environmental Assessment and Management* (Associate Editor)
- *Science of the Total Environment* (Associate Editor)
- *Toxicon*

Special Issue on Pharmaceuticals and Personal Care Products in the Environment (Guest Editor). *Environmental Toxicology and Chemistry* Vol 12, 2009.

Brooks BW, Huggett DB (Editors). In preparation. *Human Pharmaceuticals in the Environment: Current and Future Perspectives*. Springer.

***Ad hoc* Reviewer of Articles**

- *Aquatic Sciences*
- *Aquatic Toxicology*
- *Archives of Environmental Contamination and Toxicology*
- *Chemosphere*
- *Comparative Biochemistry and Physiology, Part C*
- *Critical Reviews in Toxicology*
- *Ecotoxicology and Environmental Safety*
- *Ecotoxicology*
- *Environmental Health Perspectives*
- *Environment International*
- *Environmental Pollution*
- *Environmental Science and Technology*
- *Environmental Toxicology and Chemistry*
- *Environmental Toxicology*
- *Hydrobiologia*
- *Integrated Environmental Assessment and Management*
- *Journal of Chromatography A*

- *Journal of Hazardous Materials*
- *Lakes and Reservoirs: Research and Management*
- *Marine Biology*
- *Physiological Genomics*
- *Physiology and Behavior*
- *Regulatory Toxicology and Pharmacology*
- *Reviews of Environmental Contamination and Toxicology*
- *Science of the Total Environment*
- *Toxicon*
- United States Environmental Protection Agency
- Versar, Inc.

IV. Grantsmanship

Extramural Proposals Submitted and Funded (> \$4.5 M)

V. Professional Presentations (140+)

VI. Invited Presentations (70+)

Locations: Australia, Canada, France, Poland, Portugal, Spain, Sweden, Turkey, United Kingdom, United States of America